

THREE DECADES OF BRAZIL-CHINA RELATIONS: MAPPING SCHOLARLY DISCOURSE AND FUTURE RESEARCH DIRECTIONS

RODRIGO FRANKLIN FROGERI

rodrigo.frogeri@professor.unis.edu.br

Ph.D in Information Systems and Knowledge Management from FUMEC University (Brazil) in 2019. He holds a Master's degree in Administration (2014) from Centro Universitário Novos Horizontes (Brazil) and a Bachelor's degree in Computer Science (2001) from Universidade José do Rosário Vellano (Brazil). He has specializations in Computer Networks (2003), Higher Education Teaching (2005), and Information Technology Management (2012). He has been teaching undergraduate and postgraduate courses in management and technology since 2005. Currently, he is a permanent professor in the Graduate Program in Management and Regional Development at Centro Universitário do Sul de Minas - UNIS-MG, Brazil. He is a guest professor in the Master's program in Data Science at Universidad Científica del Sur (Peru) - 2024. He serves as a technology mentor in the Innovation Ecosystem of Grupo Integrado (Brazil) and as a guest researcher at Centro Universitário Integrado, Brazil. He leads the following research groups accredited by the National Council for Scientific and Technological Development (CNPq): GPGDER - Research Group in Management and Regional Economic Development and GEADO - Research Group in Organizational Dynamic Ambidexterity. His most recent books/chapters include: "e-Government and Green IT: The Intersection Point", published in Recent Advances in Data and Algorithms for e-Government, Springer Nature (2023); "Restructuring of the Brazilian Private Higher Education Sector through the Entry of Foreign Investment", published in Advances in Tourism, Technology, and Systems. Smart Innovation, Systems, and Technologies, Springer Nature (2022); "Mapping the Brazilian Reality in the Development of Special Economic Zones", published in Special Economic Zones as Regional Development Enablers, IGI-Global (2022); and "IT Governance in SMEs: the state-of-the-art", published in Research Anthology on Small Business Strategies for Success and Survival, IGI-Global (2022).
<https://orcid.org/0000-0002-7545-7529>.

YICHAO LI

liyichao@zjnu.edu.cn

Ph.D. degree from the Institute for Research on Portuguese-speaking Countries, City University of Macau, China. She also received a Master's degree in comparative civil law (in Chinese) from the University of Macau (China) in 2018. From 2021 to 2022, she has been a postdoctoral researcher at the Centre for International Studies (ISCTE-IUL). Since 2023, she is currently an assistant research fellow at Institute of African Studies, Zhejiang Normal University, China. Her research interests are the Belt and Road Initiative, Portuguese-speaking countries, and Sino-African relations. Her latest publication stands as: Leandro, F. J. & Li, Y. (2023). Spatial Development Initiatives: The Case of African Portuguese Speaking Countries. In Duarte, P. A. B., Albuquerque, R., Tavares, A. M. L. (eds.). Portugal and the Lusophone World: Law, Geopolitics and Insitutional Cooperation. Palgrave Macmillan. Costa, C. M. & Li, Y. (2023). China and European Union countries: Do Chinese partnerships boost cooperation results?. Janus.net, e-journal of international relations. Vol. 14, No. 1, TD1-Thematic dossier "European Union-China relations", September 2023. <https://orcid.org/0000-0001-8588-1043>.

Abstract

Over the past three decades, China and Brazil have developed a robust and multifaceted relationship characterized by cooperation across various sectors. This relationship extends into numerous areas, including poverty reduction, social development, scientific and technological innovation, environmental protection, climate change mitigation, the low-carbon economy, and the digital economy. Despite the substantial bilateral relations between Brazil



and China, we are particularly interested in understanding the discussions within the scientific literature over the past 30 years and identifying new avenues for future research. To achieve this objective, we conducted an extensive Systematic Literature Review and applied bibliometric laws and lexical analyses to a total of 208 studies. The bibliometric analyses revealed that the peak of publications involving Brazil and China occurred in 2016. The scientific journal that published the greatest number of articles was the International Organisations Research Journal of the Russian Federation, and the most prolific author was Professor Mihaela Papa from Tufts University in the U.S. We identified four central research lines that could be developed in future studies: (i) Emerging Geopolitical Dynamics and the Role of BRICS; (ii) Economic and Trade Relationships within BRICS; (iii) South-South Cooperation and Alternative Development Models; (iv) Interdisciplinary Perspectives on BRICS.

Keywords

Bibliometric laws, Bilateral cooperation, BRICS, Lexical Analysis, South-South cooperation, Trade Relationship.

Resumo

Ao longo dos últimos 30 anos, a China e o Brasil desenvolveram uma relação sólida e multifacetada, caracterizada pela cooperação em vários setores. Essa relação se estende a diversas áreas, incluindo redução da pobreza, desenvolvimento social, inovação científica e tecnológica, proteção ambiental, mitigação das mudanças climáticas, economia de baixo carbono e economia digital. Apesar das consideráveis relações recíprocas entre o Brasil e a China, estamos particularmente interessados em entender as discussões na literatura científica dos últimos 30 anos e identificar novas oportunidades para pesquisas futuras. Para atingir esse objetivo, realizamos uma extensa Revisão Sistemática da Literatura (RSL) e aplicamos leis bibliométricas e análises lexicais a um total de 208 estudos. As análises bibliométricas revelaram que o pico de publicações envolvendo o Brasil e a China ocorreu em 2016. A revista científica com a maior quantidade de publicações foi a International Organisations Research Journal da Federação Russa, e o autor mais prolífico foi a professora Mihaela Papa, da Universidade Tufts, nos EUA. Identificamos quatro linhas de pesquisa centrais que podem ser desenvolvidas em estudos futuros: (i) Dinâmica Geopolítica Emergente e o Papel do BRICS; (ii) Relações Econômicas e Comerciais dentro do BRICS; (iii) Cooperação Sul-Sul e Modelos Alternativos de Desenvolvimento; (iv) Perspectivas Interdisciplinares sobre o BRICS.

Palavras-chave

Leis bibliométricas, Cooperação bilateral, BRICS, Análise lexical, Cooperação Sul-Sul, Relação comercial.

How to cite this article

Frogeri, Rodrigo Franklin & Li, Yichao (2024). Three Decades of Brazil-China Relations: Mapping Scholarly Discourse and Future Research Directions. *Janus.net, e-journal of international relations*. VOL 15 N.º 2, TD1 – Thematic Dossier – “Brazil - China Relations: The Rise Of Modern International Order”. December 2024, pp. 145-174. <https://doi.org/10.26619/1647-7251.DT0324.7>.

Article received on 1 July 2024 and accepted for publication on 24 September 2024.





THREE DECADES OF BRAZIL-CHINA RELATIONS: MAPPING SCHOLARLY DISCOURSE AND FUTURE RESEARCH DIRECTIONS

RODRIGO FRANKLIN FROGERI

YICHAO LI

Introduction

China and Brazil established diplomatic relations on September 8, 1974 (MFA-Brazil, 2024). However, it was not until 1993 that the two countries began to significantly strengthen their ties, marked by the visit of Chinese Vice-premier Zhou Rongji to Brazil in May 1993 and the establishment of strategic partnership (MFA-Brazil, 2024). This visit initiated a series of high-level engagements that underscored the growing importance of their bilateral relationship (Cardoso, 2013; Oliveira, 2004). President Luiz Inácio Lula da Silva's initial visit to China in 2004, aimed at strengthening trade and economic cooperation (MFA-Brazil, 2024). The momentum was sustained with Chinese President Hu Jintao's visit to Brazil in 2012, which underscored the necessity for enhanced cooperation in sectors such as energy and infrastructure (Barker, 2013). In 2014, Brazilian President Dilma Rousseff visited China, with a particular focus on trade and investment (Busilli & Jaime, 2021).

During his initial presidency from 2003 to 2010, President Lula da Silva aimed to strengthen relations with China, acknowledging the nation's burgeoning economic influence (De Melo & Do Amaral Filho, 2015). President Lula da Silva visited China four times during his tenure, and in 2009, China overtook the U.S. to become Brazil's largest trading partner (Rhys, 2012). This shift underscored the increasing economic interdependence between the two countries. In 2012, the signing of the China-Brazil Free Trade Agreement aimed to reduce tariffs and increase trade between the two nations. The agreement went into effect in 2013, further solidifying their economic partnership (Whalley & Medianu, 2013). Consequently, China has emerged as Brazil's largest trading partner, with bilateral trade volumes expanding from \$1.3 billion in 1993 to over \$130 billion in 2023 (MDIC, 2024). Brazil has also become one of China's largest trading partners in Latin America (Cunha, da Silva Bichara & Lélis, 2013; Hsiang, 2008).

Educational and technological cooperation between China and Brazil has also seen substantial growth (Andrade & García, 2021). The establishment of bilateral cooperation China-Brazil in areas as climate change (CGTN, 2018), energy (CNPEM, 2023), and



Information and Communication Technologies (ICT) (Sousa & Sousa, 2023) exemplifies this collaboration. Research and development in areas such as renewable energy and biotechnology, fostering innovation and technological advancement (Gandenberger & Strauch, 2018). Additionally, China's investment in Brazil's infrastructure development has been significant, particularly in the areas of transportation (Oliveira & Myers, 2021) and energy (Busilli & Jaime, 2021). Agricultural cooperation has also been a cornerstone of their relationship (Rhys, 2012). China has become one of Brazil's largest agricultural export markets, and the two countries have collaborated on agricultural research and development, strengthening their agricultural ties (Cunha, da Silva Bichara & Lélis, 2013; Hsiang, 2008).

Cultural exchanges have been instrumental in fostering mutual understanding and cooperation between China and Brazil (Leandro, 2023; Vérasi & Vérás, 2013). The Brazilian Cultural Program aims to enhance cultural ties and foster a deeper appreciation of each nation's heritage and traditions (CTG, 2021).

Both nations are members of the BRICS group (Brazil, Russia, India, China, and South Africa), which convenes annual summits to enhance cooperation in trade, investment, and social development (Kirton & Larionova, 2022; Porto de Oliveira & Romano, 2022). This multilateral cooperation has provided a platform for China and Brazil to collaborate on global issues and enhance their bilateral relations (Leta, Machado & Canchumani, 2019).

However, the period from 2019 to 2023 saw a cooling of relations under the presidency of Jair Bolsonaro (Jesus, 2022). During this period, China-Brazil relations experienced a cooling as Bolsonaro and his international governance advisors aligned more closely with the U.S. (Hirst & Valls Pereira, 2022). This shift highlighted the complexities and challenges inherent in maintaining a stable and mutually beneficial relationship (Jesus, 2022).

In summary, the thirty years of China-Brazil relations have been marked by significant diplomatic events, trade agreements, cultural exchanges, and bilateral cooperation. The two countries have made substantial progress in strengthening their ties, particularly in areas like trade, infrastructure development, and agricultural cooperation.

Despite the substantial bilateral relations between Brazil and China, we are particularly interested in understanding the discussions within the scientific literature over the past 30 years and identifying new avenues for future research. To achieve this objective, we conducted an extensive Systematic Literature Review and applied bibliometric laws and lexical analyses to a total of 208 studies.

Methodology

Methodologically, the study is characterized by a qualitative approach and follows an inductive logic. We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses¹ (PRISMA, 2020) as a method to guide the research (Page et. al., 2021). The

¹ Retrieved in June 2024, from <https://www.prisma-statement.org/>.



PRISMA 2020 statement is an updated guideline for reporting systematic reviews (Page et al., 2021). Transparent systematic reviews are an essential component of "good research", as they provide reliability and enable the replicability of a study (Sarkis-Onofre, Catalá-López, Aromataris & Lockwood, 2021).

The principal contributions to a field of knowledge or a specific topic are likely to be found in the leading scientific journals (Webster & Watson, 2002). Therefore, we searched the two main scientific journal indexing databases (SCOPUS and Web of Science) for terms suggesting a relationship or cooperation between Brazil and China. In addition to applying search strings, we read the abstracts of the studies to verify if there was any kind of relation between the topics discussed in the publication and the Brazil-China relationship or cooperation. Table 1 below shows the search string used in the databases and the respective results.

Table 1. Review of academic databases				
Platform	String	Results	Excluded*	Total
SCOPUS	(TITLE-ABS-KEY (China) AND TITLE-ABS-KEY (Brazil) AND TITLE-ABS-KEY (cooperation) AND TITLE-ABS-KEY (relation))	161	34	127
Web of Science	Brazil (Topic) and China (Topic) and relation (Topic) and cooperation (All Fields)	73	8	65
Overall		234	42	192
*The excluded data refers to duplicate records and marginal subjects found on both search platforms.				
Source: Authors, adapted from SCOPUS and Web of Science.				

We identified a total of 234 studies in the two databases. Of these, 39 were excluded due to duplicate records, and 3 were excluded because their subjects were marginal and not aligned with the Brazil-China relationship or cooperation. No temporal cutoff or filters by document type and field of knowledge were applied. Thus, we obtained a total of 192 studies considered for analysis.

In addition to the previous searches, we applied the study "China and Brazil: Economic Impacts of a Growing Relationship" (Jenkins, 2012) on the ConnectedPapers platform² (Frogeri, Diniz, Portugal Júnior & Piurcosky, 2023). ConnectedPapers allows only one study to serve as the basis for the platform's analyses. The criteria adopted for selecting Jenkins' (2012) article were as follows: (i) the study has been published for over ten years, increasing the likelihood of it being cited more frequently than more recent studies; (ii) the author, Rhys Jenkins, has a considerable number of publications involving Brazil and China; (iii) the study was published in a journal with international visibility and relevance (Journal of Current Chinese Affairs); and (iv) the central theme of the study (the China and Brazil relationship) closely aligns with the search criteria adopted in academic databases (Table 1).

² Retrieved in June 2024, from <https://www.connectedpapers.com/>.



Table 2. Prior works by ConnectedPapers based on Jenkins (2012)

Title	First author	Year	Citations	Graph citations
(Moreira, 2004)	M. Moreira	2004	208	17
(Lall et al., 2004)	S. Lall	2004	181	16
(Jenkins & Edwards, 2006)	R. Jenkins	2006	131	12
(Lall & Albaladejo, 2004)	S. Lall	2004	372	11
(Rodríguez et al., 2006)	J. Rodríguez	2006	128	10
(Rodríguez-Clare et al., 2006)	A. Rodríguez-Clare	2006	152	9
(Lederman et al., 2008)	D. Lederman	2008	72	9
(Eichengreen et al., 2007)	Barry Eichengreen	2007	172	8
(Greenaway et al., 2006)	D. Greenaway	2006	171	8
(Athukorala, 2009)	P. Athukorala	2009	200	8

Source: Generated by the authors via the ConnectedPapers platform.

Available at:

<https://www.connectedpapers.com/main/f75f0fa46fccb678e130c9d2cfb3291da8a3be4a/China-and-Brazil%3A-Economic-Impacts-of-a-Growing-Relationship/derivative>.

Table 2 shows the studies considered seminal by the ConnectedPapers platform. The number of citations of the study and the citations associated with the work in the connection graph classifies the study as seminal. Subsequently, Table 3 presents the articles considered derivatives—these are articles that cite many of the articles in the graph. The derivative articles are studies on the field or recent relevant works inspired by many articles (Eitan *et al.*, 2021).

Table 3. Derivative works by ConnectedPapers based on Jenkins (2012)

Title	First author	Year	Citations	Graph references
(Jenkins, 2022)	R. Jenkins	2022	30	10
(Jenkins & Edwards, 2015)	R. Jenkins	2015	0	8
(Stanojevic et al., 2020)	S. Stanojevic	2020	8	7
(Xu, 2016)	Yan-Qing Xu	2016	4	7
(Barker, 2013)	C. Barker	2013	0	6
(Urdínez, 2017)	Francisco Urdínez	2017	0	6
(Cunha, Lélis, Haines, & Franke, 2022)	André Moreira Cunha	2022	1	5
(Sekakela, 2016)	Kedibonye Sekakela	2016	7	5
(Cunha et. al., 2013)	André Moreira Cunha	2013	4	5

Source: Generated by the authors via the ConnectedPapers platform.

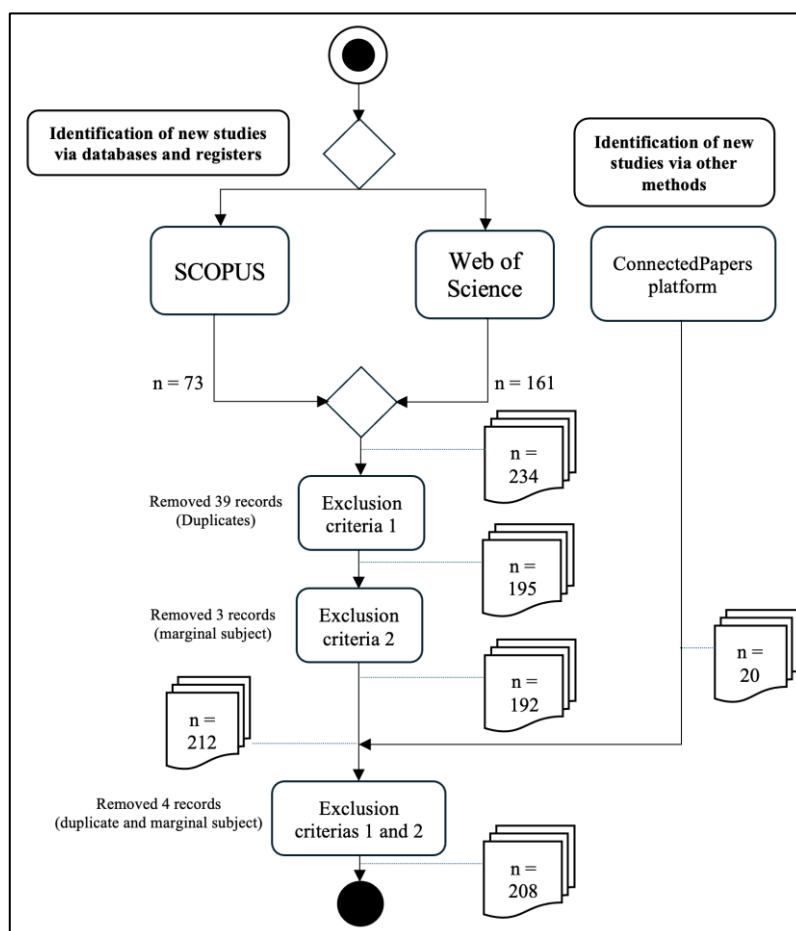
Available at:

<https://www.connectedpapers.com/main/f75f0fa46fccb678e130c9d2cfb3291da8a3be4a/China-and-Brazil%3A-Economic-Impacts-of-a-Growing-Relationship/derivative>.



We used a total of 208 documents in our analyses, combining 192 studies identified in the SLR and references suggested by the ConnectedPapers platform. Figure 2 detailed graphically the Systematic literature review procedure.

Figure 2. Systematic literature review procedure



Source: Developed by the authors based on PRISMA 2020 flow diagram.

For the lexical analyses, we employed Iramuteq software, version 0.7 alpha 2³. Iramuteq allows various lexical analysis techniques on a textual corpus (Ramos, Lima & Amaral-Rosa, 2019). Among these techniques is Descending Hierarchical Classification (DHC), which categorizes text segments according to their vocabularies. DHC seeks to identify classes of Elementary Context Units (ECUs) or Text Segments (TSs). An ECU exhibits similar vocabularies within a class and distinct vocabularies between classes (Marchand & Ratinaud, 2012).

Iramuteq also supports Correspondence Factorial Analysis (CFA), which utilizes a Cartesian plane to represent the different words and variables associated with each DHC

³ Retrieved in June 2024, from <https://iramuteq.org>.



class. Simpler analyses, such as word clouds and Similarity Analysis, are also possible. Similarity Analysis, while less complex, utilizes graph theory to depict the relationships among words (Marchand & Ratinaud, 2012).

The textual corpus used in Iramuteq was extracted from the abstracts of 208 studies selected through the Systematic Literature Review (SLR) and ConnectedPapers platform. First, we used Mendeley software to register the metadata of the documents and extract the study abstracts. Next, we exported the data from Mendeley in .RIS format and imported it into the Rayyan platform⁴ (Johnson & Phillips, 2018).

On the Rayyan platform, we analyzed the data and then exported it in .csv (Comma-Separated Values) format for import into Microsoft Excel©. This process resulted in a spreadsheet of the 208 documents with their metadata (Dataset available at Frogeri & Li, 2024). To conduct lexical analyses using the Iramuteq software, we copied the abstracts of 208 documents and pasted them into a new Microsoft Word© document. This procedure produced an 89-page .DOCX file. Finally, the abstracts in Microsoft Word© were standardized (Chaves, Santos, Santosa & Larocca, 2017).

The first step in standardising the textual corpus was to remove the copyright data that is exported along with the abstracts (e.g. ©All authors or ©Elsevier Ltd.). Extracting these data resulted in a total of 87 pages in the Microsoft Word© document. Next, we searched for compound terms (e.g. International Relations, Foreign Policy, etc.) to adjust them to the format that the Iramuteq software recognises. Words separated by spaces are treated individually by the software; therefore, compound words need to be organised with an underscore between the terms (e.g. International_Relations).

The term "international relations" was replaced with "international_relations", "foreign policy" with "foreign_policy", "Brazil, Russia, India, China and South Africa (BRICS)" with "BRICS", "Organisation for Economic Co-operation and Development (OECD)" with "OECD", "European Union (EU)" with "European_Union", "Latin America" with "Latin_America", "U.S." with "United_States", "bilateral trade" with "bilateral_trade", "Belt and Road Initiative (BRI)" with "Belt_Road_Initiative", and "South-South" with "South_South". The character "&" was also replaced with an underscore to prevent its influence on the analyses (Camargo & Justo, 2013). The Find and Replace feature in Microsoft Word was used to standardise the terms. After the standardisation procedure, the textual corpus consisted of 87 pages and 49,374 words.

Finally, the data from the .DOCX document were exported to a .TXT file and encoded in UTF-8 format. This configuration is required for the data to be imported into the Iramuteq software (Salviati, 2014).

Analysis and discussions

To organize the study's content, we have divided the analyses into two sections. The first section presents bibliometric analyses based on the Bibliometric Laws of Zipf and

⁴ Retrieved in June 2024, from <https://www.rayyan.ai/>.



Bradford (Araújo, 2006; Frogeri et. al., 2023; Pritchard & Wittig, 1981). The second section presents lexical analyses (Chaves et al., 2017; Marchand & Ratinaud, 2012).

Bibliometric Analysis

Our initial analysis focuses on the frequency of scientific publications over the past three decades that discuss the relationship between Brazil and China. Graph 1 highlights that the first publication occurred in 1999 (1) and reached its peak in 2016 (24). There is a noticeable increase in scientific publications involving the two countries (Brazil and China) starting from 2004.

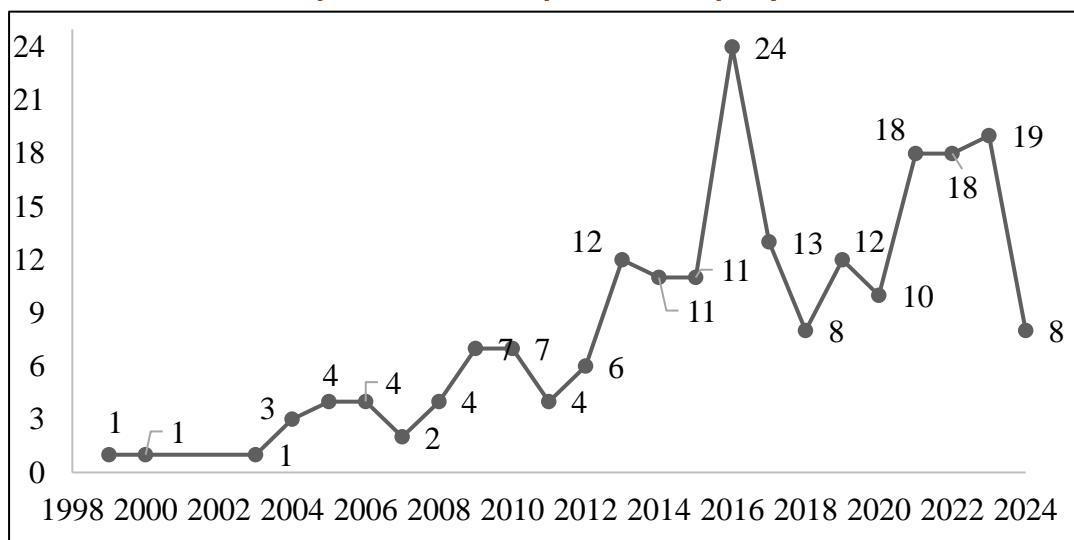
The data on publications involving Brazil and China coincide with periods of political transitions in Brazil and in the international relations between the two countries. The year 2002 saw the beginning of President Luiz Inácio Lula da Silva's first term and the subsequent strengthening of relations between the two countries (Lessa, 2010). The peak in the number of publications occurred in 2016, following the impeachment of former Brazilian President Dilma Rousseff and the ascension to power of her Vice-president, Michel Temer (Silva & Pérez, 2019).

In 2016, scientific publications began to discuss the BRICS (e.g., Armesilla Conde, 2016; De Andrade, 2016; Joshi & Ganeshan, 2016; Larionova, 2016; Muhr, 2016; Singh, 2016; Tian, 2016), Mercosur and Chinese influence in Latin America (e.g., Bizzozero & Raggio, 2016; Selden, 2016; Urdinez, Burian, & De Oliveira, 2016; Xu, 2016), and South-South cooperation (e.g., Amanor & Chichava, 2016; Zeng, Deng, Dong, & Hu, 2016).

The data in Graph 1 suggest that the number of scientific publications involving China and Brazil increased during periods of political change in Brazil (e.g., 2016, during the term of former President Michel Temer, and 2021-2023, during the term of former President Jair Messias Bolsonaro). This increase in publications was particularly noticeable when the change in Brazil's political leadership was not associated with President Luiz Inácio Lula da Silva or his successor, Dilma Rousseff. While we do not have scientific evidence to explain this trend, it can be speculated that the profile of the newly inaugurated president or their diplomatic stance in Brazil-China relations (e.g., Hirst & Valls Pereira, 2022; Vazquez, 2022) may prompt investigations by the scientific community.



Graph 1. Number of publications per year



Source: Developed by the authors.

Next, we analyzed the main funding agencies for research. The analyses highlighted the National Natural Science Foundation of China (5 - China), Economic Social Research Council - ESRC (3 - European Union), European Research Council - ERC (3 - European Union), and the National Council for Scientific and Technological Development - CNPq (2 - Brazil). The data indicate a predominance of incentives from research funding agencies in China and the European Union - these analyses suggest that there is room for Brazil to advance in funding research that involves the country's international interests, particularly in Brazil-China relations.

Regarding the scientific journals with the most publications, the following stood out (Table 4):

Table 4. Journals with the highest number of publications addressing China and Brazil relations

Title	Country	Count
International Organisations Research Journal - ISSN: 1996-7845	Russia	10
Third world quarterly - 0143-6597	UK	7
Revista Brasileira de Política Internacional - 0034-7329	Brazil	4
World development - 0305-750X	UK	4
IDS bulletin - 0265-5012	UK	4
Journal Of Contemporary China - 1067-0564	UK	3
Global Policy - 1758-5880	UK	3
Internationale Politik und Gesellschaft - 0945-2419	Germany	3
India quarterly - 0974-9284	India	2
Tydskrif vir Geesteswetenskappe - 0041-4751	South Africa	2
Economy of Regions - 2072-6414	Russia	2



East Asia – 1096-6838	Netherlands	2
Politische Vierteljahresschrift - 00323470	Germany	2
Economic Annals-XXI – 1728-6220	Ukraine	2
Space and Culture, India – 2052-8396	UK	2
Journal of environmental management – 0301-4797	U.S.	2
Tropical geography/Redai Dili – 1001-5221	China	2
Oxford Development Studies – 1360-0818	UK	2
Foresight – 1463-6689	UK	2
POLITIKON – 0258-9346	UK	2
World Economy and International Relations – 0131-2227	Russia	2

Note. The table only shows journals with a total of two or more publications.
Source: Developed by the authors.

The journal with the highest number of publications was the International Organisations Research Journal of the Russian Federation. Its mission is to disseminate Russian and international research on global governance, international cooperation, and international multilateral institutions (e.g., G20, BRICS, OECD, World Bank, IMF, WTO, UN, among others). The journal with the second highest number of publications was the Third World Quarterly from the United Kingdom (UK), which aims to disseminate studies on the Global South. The third journal is from Brazil and is titled "Revista Brasileira de Política Internacional - RBPI" (Brazilian Journal of International Politics). The RBPI journal publishes studies on topics related to International Relations in general (Politics, Economy, Sociology, Security, History, Foreign Policy, Environment, and other relevant issues on the contemporary international agenda).

Our analyses suggest that despite the journal with the highest number of publications being from the Russian Federation, there is a predominance of UK journals discussing topics related to the relationship and cooperation between Brazil and China.

Continuing with our bibliometric analyses, we observed which authors were the most prolific (Table 5).

Table 5. Most prolific authors

Author	Country	Affiliation	Count
Papa, Mihaela	U.S.	Tufts University	4
Lessa, Antônio Carlos	Brazil	University of Brasilia	3
Cezne, Eric	Netherlands	Utrecht University	3

Note. Only authors with a number of publications equal to or greater than three are listed due to the large number of authors with two or just one publication.
Source: Developed by the authors.

The author with the highest number of publications among the 208 studies analyzed was Professor Mihaela Papa from Tufts University in the U.S. Professor Mihaela Papa published studies on the BRICS (Han & Papa, 2022; Papa, Han & O'Donnell, 2023), India's multi-alignment with the Russia-India-China (RIC) triangle (O'Donnell & Papa, 2021) and the



We began the lexical analyses with the simplest analysis, the word cloud.

Figure 3 graphically presents the words with the highest frequency among the 208 abstracts analyzed. The word "country" had the highest frequency (454), followed by "china" (400), "BRICS" (308), "cooperation" (293), "economic" (290), "brazil" (289), "development" (244), "global" (241), and "relation" (210). Other words appear less frequently, with fewer than 200 occurrences.

The word cloud data suggest that the analyzed studies involve economic and development aspects between Brazil and China, in addition to global discussions with a focus on the BRICS group. However, the word cloud is limited in determining the context of one or more studies by observing only the frequency of words. Therefore, we proceeded with more robust analyses.

The next analysis performed was the Similarity Analysis (Figure 4), which allows for identifying and visualizing the relationships between words or terms in a textual corpus (Camargo & Justo, 2013).

Figure 4 shows how the words presented in the word cloud are interconnected within the analyzed texts. The clusters presented with their respective keywords such as "country,"

Figure 3. Similarity analysis of the text corpus



Note. The similarity analysis was generated for words with a frequency greater than 50.
Source: Developed by the authors via Iramuteq.



"economic," "BRICS," "cooperation," "Brazil," and "China" suggest the topics or sub-themes within the textual corpus.

The red cluster, at the top of the figure, highlights the words "China," "Brazil," "Russia," and "India" with thick branches leading to terms like "international," "Africa," "south," "trade," and "relation," suggesting that this cluster involves studies associated with BRICS countries and the African continent (e.g., Barbosa et al., 2009; Deych, 2015; Jenkins, 2022; Kamwengo, 2017).

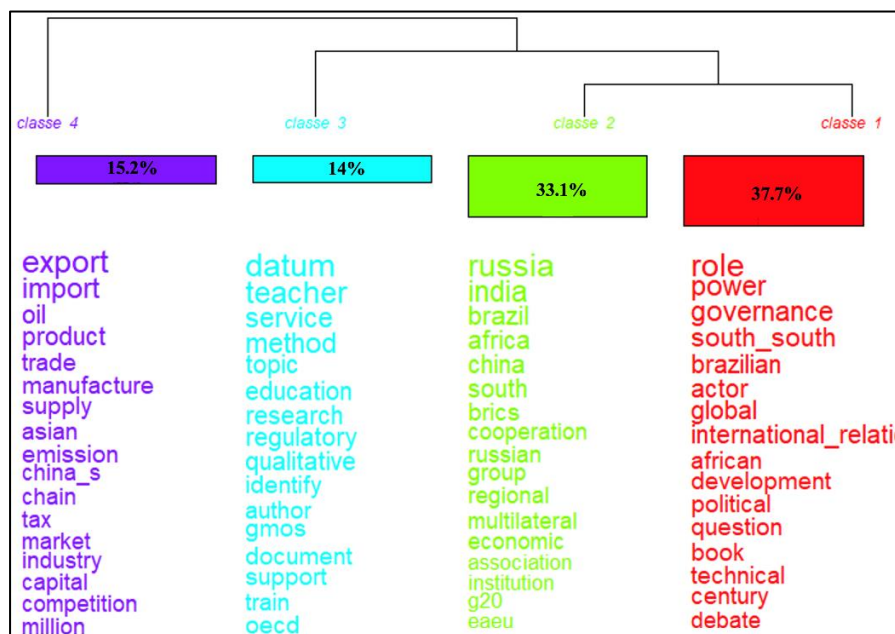
The second cluster, in blue, has "country" as its keyword, serving more as a linking cluster among the others. This cluster contains words with low frequency and less thick connections between them. Moving on to the next cluster in Figure 3, the green cluster. Nesse cluster, as palavras "economic" e "global" apresentam a maior frequência. In this cluster, the words "economic" and "global" have the highest frequency. The word "economic" is associated with "investment," "financial," "growth," "partnership," and indirectly linked to "strategic" through "partnership." The strongest (thickest) link is between "economic" and "global," which in turn derives terms such as "governance" and "power." The green cluster suggests studies discussing economic aspects (e.g., Rana, 2019) and global governance (e.g., Cruz, 2015; Fues, 2007; Larionova, 2016; Pere, 2005; Shaw, Cooper & Chin, 2009).

Finally, the yellow cluster presents the words with the highest frequency "BRICS," "cooperation," and "development." The term "BRICS" has a strong association with the word "cooperation," suggesting discussions related to mutual cooperation among the group's countries in the pursuit of development (e.g., Iqbal, Yadav & Rahman, 2023; Kubayi, 2022; Muhr, 2016; Trivedy & Khatun, 2023; Vazquez, 2021; Yarygina, Lukashenko, Lee, Washington & Tsarev, 2021). The term "south-south" also appears in this cluster, suggesting studies focused on Global South countries (e.g., Alencastro & Cezne, 2023; Amanor, 2013; Amanor & Chichava, 2016; Cezne & Hönke, 2022; Gardini, 2021; Harrison, 2015; Kragelund, 2019; Malacalza, 2019; Vieira & Alden, 2011).

Although the similarity analysis allows for the grouping of the most frequent terms into clusters, it is still not possible to understand in detail the context discussed in the studies associated with each cluster. Therefore, we applied the Reinert Method or Descending Hierarchical Classification (DHC), generating the following dendrogram (Figure 5).



Figure 5. Dendrogram of Reinert's Method (Hierarchical Descendent Classification)



Source: Developed by the authors via Iramuteq.

Figure 5 details the four classes generated by the Hierarchical Descendant Classification technique. Each class shares a similar vocabulary, and thus a common theme or topic. It is important to note that the colours or words presented in the Hierarchical Descendant Classification are not the same as those in the Similarity Analysis (Figure 3). This new analysis uses a different algorithm from the Similarity Analysis.

The red and green classes contain the highest percentages of Elementary Context Units (ECUs), with 37.7% and 33%, respectively. These classes are close together because they are subdivisions of broader classes (classes 3 and 4). The analysis using the most frequent words in each class is similar to the one conducted previously through the Similarity Analysis. To deepen our analysis, we generated the "Corpus couleur" for the HDC. The "Corpus couleur" file presents complete excerpts of the classes' keywords in an .HTML format (Salviati, 2014), enabling contextual analysis of the classes.

Our first analysis concerns the **Red Class (1)** [words in red color] and the discussions are presented in the following paragraphs.

The Red class (1) examines diverse facets of international politics and the dynamic evolution of global relations. Red class objective is to provide a framework for understanding recent transformations in international politics, focusing on the ascendance of China and the repercussions of the COVID-19 pandemic. Furthermore, it underscores the importance of interdisciplinary approaches and highlights the contributions of Latin American scholars, especially from Brazil, to global academic debates.



The Class discusses the strengthening of state roles in local, national, and global economies and advocates for a robust system of South-South relations based on revitalized third-world institutions and a framework that transcends Eurocentric views. It examines the foundations of Brazilian diplomacy over the past half-century, focusing on changes in the 1980s and 1990s up to the foreign policies of Lula's government (2003-2009). The analysis recognizes advancements in Lula's foreign policy, especially towards Africa, but questions whether Brazil's economy can sustain such policies.

Further, the Class explores the political and economic cooperation between Brazil and African countries, providing an overview of trade and investment relations within the region and with key partners. It examines the BRICS group's evolution from a financial category to a political entity, focusing on their coordinated efforts on global economic and political issues.

The class also addresses China's ideological engagement in Latin America since the 1950s, transitioning from cultural diplomacy and revolutionary rhetoric to pragmatic economic initiatives. It evaluates the impacts of China's economic boom on Latin American and Caribbean countries, analyzing post-global financial crisis trends in Sino-Latin American economic relationships, with an emphasis on Brazil's experience. In addition, the class assesses China's significant economic growth and its implications for Sub-Saharan Africa and Latin America. It documents China's varied economic involvement and its social, political, and environmental impacts on these regions.

The Class further examines China's and India's roles as major global economic players, their impact on Sub-Saharan African countries, and the broader implications for manufacturing and development in Latin America. It discusses the competitive challenges posed by China and the policy options available for Latin American countries to address these challenges.

Finally, the Red class addresses the BRICS' role in global governance, particularly after the 2008 financial crisis, and the challenges faced by southern powers in reshaping the existing power configurations. It evaluates the strategic implications of China's economic performance for Latin American growth and development and examines the diplomatic and economic relationships between Brazil and China in recent years.

Overall, the Red class provides a comprehensive analysis of the evolving dynamics in international relations and the intricate economic and political interactions between major global players and Latin American countries.

Next, we analysed the data from the **Green class (2)** [words in green color] discussing the shifting dynamics of global economic and political influence, focusing on the BRICS countries. It covers their emergence as significant players in the international system and the implications for global governance. The 2008-2010 economic crisis is highlighted as a pivotal moment prompting changes in the international order, necessitating broader geopolitical cooperation and the inclusion of regional powers. The BRICS countries' coordinated efforts within the G20 to push for global governance reforms are emphasized. Additionally, the Class also explores diplomatic, political, and economic interactions among BRICS nations, examining whether they operate independently or



cohesively. It analyzes China's strategic partnerships with Latin American countries, the asymmetry in these relationships, and the benefits to China.

Regional economic cooperation organizations' roles in reshaping trade groups and the significance of trade among major global economies, including the U.S., China, and European countries, are addressed. The class examines the motivations behind foreign aid and the duality in managing development cooperation agendas within the BRICS and the Shanghai Cooperation Organisation (SCO). Russia's strategic partnerships and economic relationships with Latin American countries, driven by domestic political motivations and economic interests, are analyzed. India's engagement with Russia and China through multilateral alignments like BRICS and the SCO, despite geopolitical tensions, is also considered.

The Green class (2) concludes by discussing the broader implications of the BRICS countries' rise for global power dynamics and potential systemic changes. While the BRICS have achieved some success in establishing an alternative global order based on cooperation, mutual respect, and a balance of interests, it is premature to assert the creation of a fundamentally new type of international institution within the BRICS structure at this stage.

The **Lilac class (3)** [words in Lilac color] covers a range of topics, including the dynamics, agreements and educational systems between the BRICS countries and US hegemony in Latin America from 2001 to 2015. The Class also examines economic and social inequalities in BRICS, relations between the US and Brazil, and the impact of major international institutions on higher education. Future scenarios of global governance are explored. Legal frameworks for outer space and BRICS participation in international treaties are discussed, especially cooperation between Brazil and China. Finally, the potential of South-South cooperation for alternative development is analyzed, including the role of GMOs and the OECD in risk assessment.

Overall, the Class offers a comprehensive analysis of BRICS interactions, legal structures and educational systems, with an emphasis on cooperation, market dynamics and political implications.

Finally, the **Purple Class (4)** [words in purple color] initially discuss the dynamics of economic relationships and trade patterns between various countries, particularly focusing on the influence of China's economic ascent on Latin American countries. It outlines how China's rise has created asymmetrical trade relationships, often positioning Latin American countries as exporters of raw materials while importing manufactured goods from China. The analysis highlights the increasingly regressive production and trade specialization in Brazil due to its trade relations with China.

The Class also discusses the mutual trade structures between Botswana and China, highlighting Botswana's export of primary products and its import of intermediate and capital goods from China. Similarly, in Brazil, the relationship between its regressive specialization and China's international competitiveness is analyzed. The growth of China's market share often coincides with a decrease in Brazil's share, impacting Brazil's competitiveness in global markets, particularly in manufactured goods. The class suggests that Latin American countries should diversify their export agendas towards



China, develop new productive partnerships, and increase the competitiveness of their firms.

Additionally, the Class examines the global trade network of oil crops, revealing Brazil's increasing market share and its impact on the U.S. It discusses the structure of the oil crop trade network, noting China's significant role despite risks from concentrated import sources. The discussions into the Class recommends China to diversify its import sources, deepen trade cooperation, and ensure the security of oil crop imports. Moreover, the analysis of the global woody forest products trading network shows increased complexity and changing trade positions, with China playing a crucial role.

In summary, the Purple class (4) provides a comprehensive analysis of the multifaceted trade and economic relationships influenced by China's rise, emphasizing the need for strategic diversification and competitiveness enhancements in Latin American economies.

To compile the discussions of our analyses, we created Table 6, in which the central themes of each class are presented.

Table 6. Summarization of the Red, Green, Lilac, and Purple class

Class	Summary
Red Class	The Red class examines international politics, focusing on the rise of China and the strengthening of state roles in economies. It explores South-South relations, Brazilian diplomacy, BRICS evolution, and China's impact on Latin America and Sub-Saharan Africa. The class highlights local conditions' role in shaping China's economic effects and compares geopolitical significance between Brazil and China.
Green Class	The Green class discusses the BRICS countries' emergence as global players and their role in global governance post the 2008-2010 economic crisis. It covers diplomatic and economic interactions within BRICS, regional economic cooperation, motivations behind foreign aid, and strategic partnerships, particularly focusing on China, Russia, and India's relations with Latin America and each other.
Lilac Class	The Lilac class explores interactions within BRICS, analyzing China's market influence on Brazil and U.S. hegemony in Latin America. It discusses indirect expropriation in investment agreements, and BRICS summits' achievements. The class addresses economic and social inequalities, U.S.-Brazil relations, higher education's influence by international institutions, and future global governance scenarios, including legal frameworks for outer space and South-South cooperation.
Purple Class	The Purple class focuses on economic relationships and trade patterns, especially China's impact on Latin America. It highlights asymmetrical trade relationships, regressive production in Brazil, and Botswana's import dynamics. The class discusses Brazil's competitiveness, diversification of export agendas, global trade networks of oil crops and woody forest products, and the relation between innovation efforts and export performance. It also examines the significance of OECD and UN model conventions in Canadian tax treaties.

Source: Developed by the authors.



Now, considering our analyses and discussions, we suggest new avenues to be explored in future research.

Emerging Geopolitical Dynamics and the Role of BRICS

- The inclusion of Iran, Egypt, Ethiopia, and the United Arab Emirates in the BRICS membership and the resulting implications for global geopolitics.
- The strategic partnerships and diplomatic interactions between BRICS countries, and how these are shaping regional and global power dynamics.
- The role of BRICS in overhauling global governance institutions like the UN Security Council, and the challenges encountered in achieving these changes.
- Comparative analysis of the BRICS model of cooperation versus traditional Western-led institutions like the G7.

Economic and Trade Relationships within BRICS

- The evolving trade and investment patterns between BRICS countries, and the impact on economic development in these regions.
- Strategies adopted by BRICS countries to enhance their competitiveness and diversify their export baskets, especially in the context of China's growing economic influence.
- The role of regional economic cooperation organizations within the BRICS framework, and their impact on intra-BRICS trade and investment.
- Implications of BRICS initiatives like the New Development Bank and the BRICS Contingent Reserve Arrangement for the global financial architecture.

South-South Cooperation and Alternative Development Models

- The potential of South-South cooperation, as exemplified by BRICS, to foster alternative development pathways that challenge traditional North-South dynamics.
- The role of BRICS in promoting a multipolar world order and challenging Western-centric models of development and global governance.
- A comparative analysis of the BRICS approach to development cooperation versus traditional aid models advocated by the OECD and other Western-led institutions.
- Exploration of the BRICS countries' engagement with the Global South, including Africa and Latin America, and the implications for regional integration and development.

Interdisciplinary Perspectives on BRICS

- An examination of the legal frameworks and international treaties that govern the participation of BRICS countries in global governance, particularly in domains such as outer space.
- Analysis of the social, political, and environmental impacts of BRICS countries' economic rise, and the potential for sustainable development models.
- Exploring the role of education systems and workforce development within BRICS countries, and their implications for global competitiveness.



Conclusion

Despite the substantial bilateral relations between Brazil and China, we were particularly interested in understanding the discussions within the scientific literature over the past 30 years and identifying new avenues for future research. Our results revealed that the peak of publications involving Brazil and China occurred in 2016. The scientific journals with the highest number of publications were the International Organisations Research Journal (ISSN: 1996-7845) of the Russian Federation, followed by Third World Quarterly (ISSN: 0143-6597) from the UK, Revista Brasileira de Política Internacional (ISSN: 0034-7329) from Brazil, World Development (ISSN: 0305-750X), and IDS Bulletin (ISSN: 0265-5012), both from the UK. The most prolific authors were Professor Mihaela Papa from Tufts University (U.S.), Professor Antônio Carlos Lessa from the University of Brasília (UNB, Brazil), and Eric Cezne from Utrecht University (Netherlands).

After reviewing the bibliometric data, we focused on identifying new avenues for research based on our SLR. Several key topics are frequently discussed in the context of China-Brazil relations. Central themes include the rise of China as a global power and the increasing role of states in economic affairs, with particular attention to how these dynamics influence international politics. The strengthening of South-South relations, particularly through diplomatic engagements facilitated by Brazil, is also a significant area of interest. Additionally, the evolution of the BRICS grouping and China's economic and political influence on Latin America and Sub-Saharan Africa are important themes. Our findings also highlight the importance of local conditions in shaping China's economic effect and the geopolitical significance of Brazil and China.

Furthermore, we consider that expanding BRICS membership to include Iran, Egypt, Ethiopia, and the United Arab Emirates could have significant implications for global geopolitics, potentially altering the balance of power. Strategic partnerships and diplomatic interactions among BRICS countries may increasingly shape regional and global dynamics, influencing economic and political landscapes. Furthermore, BRICS might play an essential role in advocating for reforms in global governance institutions, despite facing substantial challenges, and could offer a distinct model of cooperation compared to traditional Western-led institutions like the G7.

The evolving trade and investment patterns between BRICS countries could significantly impact economic development within these regions. Strategies adopted by BRICS nations to enhance competitiveness and diversify their export baskets, especially in light of China's growing economic influence, may prove pivotal. Additionally, regional economic cooperation organizations within the BRICS framework and initiatives like the New Development Bank and the BRICS Contingent Reserve Arrangement might reshape the global financial architecture and boost intra-BRICS trade and investment.

South-South cooperation has the potential to foster alternative development pathways that challenge traditional North-South dynamics. BRICS may play a pivotal role in promoting a multipolar world order and challenging Western-centric models of development and global governance. Furthermore, a comparative analysis of the BRICS approach to development cooperation versus traditional aid models promoted by the OECD and other Western-led institutions, along with the engagement of BRICS countries



with the Global South, including Africa and Latin America, could have significant implications for regional integration and development.

Finally, interdisciplinary perspectives on BRICS include examinations of the legal frameworks and international treaties that govern BRICS countries' participation in global governance. Furthermore, analyses of the social, political, and environmental impacts of BRICS countries' economic rise, along with explorations of their education systems and workforce development, could shed light on potential sustainable development models and implications for global competitiveness.

Despite the rigorous methodological procedures followed in this study, certain limitations must be considered. Our Systematic Literature Review was limited to the SCOPUS and Web of Science databases, which do not cover all scientific journals. Furthermore, our search was restricted to descriptors in English, excluding studies published in Portuguese, Spanish, or Chinese. We also consider the absence of discussions on the literature involving BRICS and the G20 to be a limitation of this study.

Therefore, in addition to the themes we identified as research opportunities, we suggest that future studies conduct a Systematic Literature Review using descriptors in various languages and incorporating other databases (e.g., SciELO.org, EBSCOhost, JSTOR). Finally, we suggest that the literature on the G20 and BRICS groups be considered in future studies.

Data available

Frogeri, R. F., & Li, Y. (2024). Dataset - Systematic Literature Review of China-Brazil Relations (1993-2023): Exploring New Research Directions [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.12665713>

References

Alencastro, M., & Cezne, E. (2023). The South-South investment that never happened: Vale in Guinea. *Extractive Industries and Society*, 13. <https://doi.org/10.1016/j.exis.2022.101147>

Amanor, K. S. (2013). South-South cooperation in africa: Historical, geopolitical and political economy dimensions of international development. *IDS Bulletin*, 44(4), 20–30. <https://doi.org/10.1111/1759-5436.12039>

Amanor, K. S., & Chichava, S. (2016). South-South Cooperation, Agribusiness, and African Agricultural Development: Brazil and China in Ghana and Mozambique. *World Development*, 81, 13–23. <https://doi.org/10.1016/j.worlddev.2015.11.021>

Andrade, A. F. . de, & García, C. A. C. (2021). How Brazilian Governments (2003-2019) view China: A Role Theory Analysis. *DESAFIOS*, 33(1). <https://doi.org/10.12804/revistas.urosario.edu.co/desafios/a.9031>



- Araújo, C. A. (2006). Bibliometria: evolução histórica e questões atuais. *Em Questão*, 12(1), 11–32. <https://seer.ufrgs.br/EmQuestao/article/view/16>
- Armesilla Conde, S. (2016). TTIP vs. BRICS: Consequences on geopolitics and international relations of the XXIst. Century. *Política y Sociedad*, 53(2), 621–637. https://doi.org/10.5209/rev_POSO.2016.v53.n2.46758
- Athukorala, P. (2009). The Rise of China and East Asian Export Performance: Is the Crowding-Out Fear Warranted? *World Economy*, 32, 234–266. <https://doi.org/10.1111/j.1467-9701.2008.01151.x>
- Barbosa, A. D., Narciso, T., Biancalana, M., de Freitas Barbosa, A., Narciso, T., & Biancalana, M. (2009). Brazil in Africa: Another emerging power in the continent? *POLITIKON*, 36(1), 59–86. <https://doi.org/10.1080/02589340903155401>
- Barker, C. (2013). What Implications Does Rising Chinese Influence Have for Latin America? *E-International Relations*, 1–8. <https://www.e-ir.info/2013/08/13/what-implications-does-the-rising-chinese-influence-have-for-latin-america/>
- Becard, D. R., & Lessa, A. C. (2021). Brazilian foreign policy to china in the 21st century (2003-2019): Trends, transitions and implications. In *China-Latin America and the Caribbean: Assessment and Outlook* (pp. 99–111). Taylor and Francis. <https://doi.org/10.4324/9781003037934-9>
- Bizzozero, L., & Raggio, A. (2016). The impact of the people's republic of China in the axis Argentina-Brazil between 2004 and 2014. Systemic - Structural evolution or definitions politician strategic? *Araucaria*, 18(35), 341–364. <https://doi.org/10.12795/araucaria.2016.i35.17>
- Busilli, V. S., & Jaime, M. B. (2021). Chinese Investments in Brazil: Economic Diplomacy in Bilateral Relations. *Contexto Internacional*, 43(3), 541–564. <https://doi.org/10.1590/s0102-8529.2019430300005>
- Camargo, B. V., & Justo, A. M. (2013). IRAMUTEQ: Um software gratuito para análise de dados textuais. *Temas Em Psicologia*, 21(2), 513–518. <https://doi.org/10.9788/tp2013.2-16>
- Cardoso, D. (2013). China-Brazil: A strategic partnership in an evolving world order. *East Asia*, 30(1), 35–51. <https://doi.org/10.1007/s12140-012-9186-z>
- Cezne, E., & Hönke, J. (2022). The multiple meanings and uses of South-South relations in extraction: The Brazilian mining company Vale in Mozambique. *WORLD DEVELOPMENT*, 151. <https://doi.org/10.1016/j.worlddev.2021.105756>
- CGTN. (2018). *China-Brazil Center responds to climate change*. https://news.cgtn.com/news/35676a4d316b7a6333566d54/share_p.html
- Chaves, M. M. N., Santos, A. P. R. dos, Santosa, N. P. dos, & Larocca, L. M. (2017). Use of the software IRAMUTEQ in qualitative research: An experience report. *Studies in Systems, Decision and Control*, 71, 39–48. https://doi.org/10.1007/978-3-319-43271-7_4



CNPEM. (2023). *Bilateral partnership between Brazil and China: CNPEM and IHEP sign cooperation agreement*. Centro Nacional de Pesquisa Em Energia e Materiais - CNPEM. <https://cnpem.br/en/bilateral-partnership-between-brazil-and-china-cnpem-and-ihep-sign-cooperation-agreement/>

Cruz, S. O. (2015). Alternative futures of global governance: scenarios and perspectives from the global south. *Foresight*, 17(2), 125–142. <https://doi.org/10.1108/FS-05-2014-0030>

CTG. (2021). *CTG Brasil sponsored Brazilian Cultural Program in China*. China Three Gorges Corporation. https://www.ctg.com.cn/ctgenglish/news_media/news37/1470151/index.html

Cunha, A., da Silva Bichara, J., & Lélis, M. T. C. (2013). Latin America and the rise of China: a Brazilian perspective. *América Latina Hoy*, 65, 185–207. <https://doi.org/10.14201/alh201365185207>

Cunha, A. M., Lélis, M., Haines, A. E. F., & Franke, L. (2022). Exports of Manufactured Goods and Structural Change: Brazil in the Face of Chinese Competition. *SSRN Electronic Journal*, null, null. <https://doi.org/10.2139/ssrn.4117189>

De Andrade, J. P. (2016). Cooperation among BRICS in space matter: A review of brazilian agreements. *Proceedings of the International Astronautical Congress, IAC*, 0. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85016520110&partnerID=40&md5=57b360a5dc31358f58ee0b5c59472b08>

De Melo, M. C. P., & Do Amaral Filho, J. (2015). The Political Economy of Brazil-China Trade Relations, 2000-2010. *Latin American Perspectives*, 42(6), 64–87. <https://doi.org/10.1177/0094582X15593935>

Deych, T. (2015). BRICS regional policy in Africa. *International Organisations Research Journal*, 10(2), 206–228. <https://doi.org/10.17323/1996-7845-2015-02-206>

Eichengreen, B., Rhee, Y., & Tong, H. (2007). China and the Exports of Other Asian Countries. *Review of World Economics*, 143, 201–226. <https://doi.org/10.1007/s10290-007-0105-0>

Eitan, A. T., Smolyansky, E., & Harpaz, I. K. (2021). *Connected Papers*. <https://www.connectedpapers.com/about>

Frogeri, R. F., Diniz, W. F. da S., Portugal Júnior, P. dos S., & Piurcosky, F. P. (2023). e-Government and Green IT: The Intersection Point. In C. Gaie & M. Mehta (Eds.), *Recent Advances in Data and Algorithms for e-Government* (pp. 103–126). Springer International Publishing. https://doi.org/10.1007/978-3-031-22408-9_5

Fues, T. (2007). Global governance beyond the G8: Reform Prospects for the summit architecture. *Internationale Politik Und Gesellschaft*, 2, 11-24+186+187. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-34248677138&partnerID=40&md5=7ab51158b88d9a2ded72b196cc3d3e20>



- Gandenberger, C., & Strauch, M. (2018). Wind energy technology as opportunity for catching-up? A comparison of the tis in Brazil and China. *Innovation and Development*, 8(2), 287–308. <https://doi.org/10.1080/2157930X.2018.1428050>
- Gardini, G. L. (2021). Geopolitics between neo-extractivism and South-South cooperation. In *External Powers in Latin America: Geopolitics between Neo-extractivism and South-South Cooperation* (pp. 263–276). Taylor and Francis. <https://doi.org/10.4324/9780429351808-102>
- Greenaway, D., Mahabir, A., & Milner, C. (2006). *China and the World Economy Research Paper 2006 / 21 Has China Displaced Other Asian Countries' Exports?* <https://www.semanticscholar.org/paper/b41f7b311b3f4d6087667e6a9fa13144838ad8c9>
- Han, Z., & Papa, M. (2022). Brazilian alliance perspectives: towards a BRICS development–security alliance? *Third World Quarterly*, 43(5), 1115–1136. <https://doi.org/10.1080/01436597.2022.2055539>
- Harrison, P. (2015). South-south relationships and the transfer of “best practice”: The case of Johannesburg, South Africa. *International Development Planning Review*, 37(2), 205–223. <https://doi.org/10.3828/idpr.2015.16>
- Hirst, M., & Valls Pereira, L. B. (2022). Making sense of United States–Brazil relations under Bolsonaro. *Latin American Policy*, 13(2), 432–446. <https://doi.org/10.1111/lamp.12273>
- Hönke, J., Cezne, E., & Yang, Y. (2023). Liminaly Positioned in the South: Reinterpreting Brazilian and Chinese Relations with Africa. *Global Society*, 37(2), 197–224. <https://doi.org/10.1080/13600826.2022.2094222>
- Hsiang, A. C. (2008). China challenges US in Latin America. *Tamkang Journal of International Affairs*, 11(4), 121–152.
- Iqbal, B. A., Yadav, A., & Rahman, M. N. (2023). Trade Relations among the BRICS Countries: An Indian Perspective. *China and WTO Review*, 9(2), 355–366. <https://doi.org/10.14330/cwr.2023.9.2.07>
- Jenkins, R. (2012). China and Brazil: Economic Impacts of a Growing Relationship. *Journal of Current Chinese Affairs*, 41(1), 21–47. <https://doi.org/10.1177/186810261204100102>
- Jenkins, R. (2022). *How China is Reshaping the Global Economy: Development Impacts in Africa and Latin America*. Oxford Press. <https://doi.org/10.1093/oso/9780198738510.001.0001>
- Jenkins, R., & Edwards, C. (2006). The economic impacts of China and India on sub-Saharan Africa: Trends and prospects. *Journal of Asian Economics*, 17(2), 207–225. <https://doi.org/10.1016/J.ASIECO.2006.02.002>
- Jenkins, R., & Edwards, L. (2015). Is China ‘Crowding Out’ South African Exports of Manufactures? *The European Journal of Development Research*, 27, 903–920. <https://doi.org/10.1057/ejdr.2014.72>



- Jesus, D. S. V. de. (2022). The Strategy of Chaos: Brazilian Foreign Policy under Jair Bolsonaro (2019-2022). *International Journal of Social Science Studies*, 10(6), 1. <https://doi.org/10.11114/ijsss.v10i6.5686>
- Johnson, N., & Phillips, M. (2018). Rayyan for systematic reviews. *Journal of Electronic Resources Librarianship*, 30(1), 46–48. <https://doi.org/10.1080/1941126X.2018.1444339>
- Joshi, M., & Ganeshan, S. (2016). India-EU energy relations: Towards closer cooperation? In *Challenges of European External Energy Governance with Emerging Powers* (pp. 149–171). Taylor and Francis. <https://doi.org/10.4324/9781315571164-12>
- Kamwengo, C. M. (2017). China and Brazil as Southern Africa’s non-interfering development partners: Rhetoric or reality? *Journal of Southern African Studies*, 43(5), 1087–1101. <https://doi.org/10.1080/03057070.2017.1343014>
- Kirton, J., & Larionova, M. (2022). The First Fifteen Years of the BRICS. *International Organisations Research Journal*, 17(2). <https://doi.org/10.17323/1996-7845-2022-02-01>
- Kragelund, P. (2019). South-south development. In *South-South Development*. <https://doi.org/10.4324/9781315164731>
- Kubayi, J. M. N. (2022). BRICS, Structural Power and the BRICS Bank as a Potentially Progressive Instrument for a Passive Revolution. In *International Political Economy Series* (pp. 39–59). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-97397-1_3
- Lall, S., & Albaladejo, M. (2004). China’s Competitive Performance: A Threat To East Asian Manufactured Exports? *World Development*, 32(9), 1441–1466. <https://doi.org/10.1016/J.WORLDDEV.2004.03.006>
- Lall, S., Weiss, J., & Oikawa, H. (2004). China’s Competitive Threat to Latin America: An Analysis for 1990–2002. *Oxford Development Studies*, 33, 163–194. <https://doi.org/10.1080/13600810500137764>
- Larionova, M. (2016). Evaluating global institutions’ effectiveness; Assessing summit institutions engagement with other international organizations in the process of global governance. *International Organisations Research Journal*, 11(1), 69–85.
- Leandro, J. F. (2023). The Last Five Decades of Sino-Portuguese Relations: The Quest for the Belt and Road Initiative. *Daxiyangguo - Revista Portuguesa De Estudos Asiáticos / Portuguese Journal of Asian Studies*, 30, 13–79. <https://doi.org/10.33167/1645-4677.daxiyangguo2023.30/pp.13-79>
- Lederman, D., Olarreaga, M., & Perry, G. E. (2008). *China’s and India’s Challenge to Latin America: Opportunity or Threat?* <https://doi.org/10.1596/978-0-8213-7308-8>
- Lessa, A. C. (2010). Brazil’s strategic partnerships: An assessment of the Lula era (2003–2010). *Revista Brasileira de Política Internacional*, 53(SPEC ISSUE), 115–131. <https://doi.org/10.1590/s0034-73292010000300007>
- Leta, J., Machado, R. das N., & Canchumani, R. M. L. (2019). Scientific Collaboration Among BRICS: Trends and Priority Areas. In W. Glänzel, H. F. Moed, U. Schmoch, & M.



Thelwall (Eds.), *Handbook of Science and Technology Indicators* (pp. 485–504). Springer International Publishing. https://doi.org/10.1007/978-3-030-02511-3_19

Malacalza, B. (2019). The politics of south-south collaboration: China, India and Brazil in Latin America and the Caribbean. *Colombia Internacional*, 98, 67–103. <https://doi.org/10.7440/colombiaint98.2019.03>

Marchand, P., & Ratinaud, P. (2012). L'analyse de similitude appliquée aux corpus textuels: les primaires socialistes pour l'élection présidentielle française. *Actes Des 11èmes Journées Internationales d'Analyse Des Données Textuelles (JADT)*, 687–699. [http://lexicometrica.univ-paris3.fr/jadt/jadt2012/Communications/Marchand_Pascal_et_al.-L'analyse de similitude appliquee aux corpus textuels.pdf](http://lexicometrica.univ-paris3.fr/jadt/jadt2012/Communications/Marchand_Pascal_et_al.-L%27analyse%20de%20similitude%20appliquee%20aux%20corpus%20textuels.pdf)

MDIC. (2024). *Exports, Imports and Trade Balance - Partner: China*. Ministry of Development, Industry, Trade and Services. <https://comexstat.mdic.gov.br/en/comex-vis>

Ministry of Foreign Affairs - Brazil (MFA-Brazil). (2024). *People's Republic of China*. Ministério Das Relações Exteriores. <https://www.gov.br/mre/en/subjects/bilateral-relations/all-countries/people-s-republic-of-china>

Moreira, M. (2004). Fear of China: Is There a Future for Manufacturing in Latin America? *Latin American Economics*, null, null. <https://doi.org/10.2139/ssrn.597141>

Muhr, T. (2016). Beyond 'BRICS': Ten theses on South–South cooperation in the twenty-first century. *Third World Quarterly*, 37(4), 630–648. <https://doi.org/10.1080/01436597.2015.1108161>

O'Donnell, F., & Papa, M. (2021). India's multi-alignment management and the Russia-India-China (RIC) triangle. *International Affairs*, 97(3), 801–+. <https://doi.org/10.1093/ia/iiab036>

Oliveira, H. A. de. (2004). Brasil-China: trinta anos de uma parceria estratégica. *Revista Brasileira de Política Internacional*, 47(1), 7–30. <https://doi.org/10.1590/s0034-73292004000100002>

Oliveira, G. D. L. T., & Myers, M. (2021). The Tenuous Co-Production of China's Belt and Road Initiative in Brazil and Latin America. *Journal of Contemporary China*, 30(129), 481–499. <https://doi.org/10.1080/10670564.2020.1827358>

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *The BMJ*, 372. <https://doi.org/10.1136/bmj.n71>

Papa, M., & Gleason, N. W. (2012). Major emerging powers in sustainable development diplomacy: Assessing their leadership potential. *Global Environmental Change*, 22(4), 915–924. <https://doi.org/10.1016/j.gloenvcha.2012.06.003>



- Papa, M., Han, Z., & O'Donnell, F. (2023). The dynamics of informal institutions and counter-hegemony: introducing a BRICS Convergence Index. *European Journal of International Relations*, 29(4), 960–989. <https://doi.org/10.1177/13540661231183352>
- Pere, G. L. E. (2005). Emerging markets - Emerging powers: Changing parameters for global economic governance. *Internationale Politik Und Gesellschaft*, 2, 36-51+185. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-18144382649&partnerID=40&md5=9d2ba55f43169307ac5fa877bf87223c>
- Porto de Oliveira, O., & Romano, G. C. (2022). Brazil and China in Knowledge and Policy Transfer: Agents, Objects, Time, Structures and Power. In *Brazil and China in Knowledge and Policy Transfer: Agents, Objects, Time, Structures and Power*. Springer International Publishing. <https://doi.org/10.1007/978-3-031-09116-2>
- Pritchard, A., & Wittig, G. R. (1981). *Bibliometrics*. ALLM Books.
- Ramanzini Junior, H., Lessa, A. C., Dias, W., Ramanzini, H. J., Lessa, A. C., & Dias, W. (2023). RBPI and the Study of IR: Fostering a Multifaceted Platform for Global Dialogue, Debate and Academic Cooperation. *Revista Brasileira de Política Internacional*, 66(2). <https://doi.org/10.1590/0034-7329202300225>
- Ramos, M. G., Lima, V. M. do R., & Amaral-Rosa, M. P. (2019). IRAMUTEQ Software and Discursive Textual Analysis: Interpretive Possibilities. *Advances in Intelligent Systems and Computing*, 861, 58–72. https://doi.org/10.1007/978-3-030-01406-3_6
- Rana, R. (2019). Asian infrastructure investment bank, new development bank and the reshaping of global economic order: Unfolding trends and perceptions in Sino-Indian economic relations. *International Journal of China Studies*, 10(2), 273–290. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85084072381&partnerID=40&md5=0365fe539206da4096b1e0aff07f3abf>
- Rodríguez, J., Blazquez, J., & Santiso, J. (2006). Angel or Devil: China's Trade Impact on Latin American Emerging Markets. *CEPAL Review*, 15–41. <https://ssrn.com/abstract=1298968>
- Rodríguez-Clare, A., Devlin, R., & Estevadeordal, A. (2006). *The Emergence of China: Opportunities And Challenges for Latin America And the Caribbean*. <https://www.semanticscholar.org/paper/173c0df9b9d3b9bef29606c96ca8c8b63fc1b85d>
- Salviati, M. E. (2014). *Manual do aplicativo IRaMuTeQ*. <http://www.iramuteq.org/documentation/html>
- Sarkis-Onofre, R., Catalá-López, F., Aromataris, E., & Lockwood, C. (2021). How to properly use the PRISMA Statement. *Systematic Reviews*, 10(1), 13–15. <https://doi.org/10.1186/s13643-021-01671-z>
- Sekakela, K. (2016). The Impact of Trading With China on Botswana's Economy. *Journal of Chinese Economic and Foreign Trade Studies*, 9, 2–23. <https://doi.org/10.1108/JCEFTS-09-2014-0022>
- Selden, Z. (2016). Alignment, Alliance, and American Grand Strategy. In *Alignment, Alliance, and American Grand Strategy*. <https://doi.org/10.3998/mpub.8772580>



- Shaw, T. M., Cooper, A. F., & Chin, G. T. (2009). Emerging powers and africa: Implications for/from global governance? *Politikon*, 36(1), 27–44. <https://doi.org/10.1080/02589340903155385>
- Silva, A. L. R. da, & Pérez, J. O. (2019). Lula, Dilma, and Temer: The Rise and Fall of Brazilian Foreign Policy. *Latin American Perspectives*, 46(4), 169–185. <https://doi.org/10.1177/0094582X19846521>
- Singh, K. (2016). A comparative analysis of foreign trade of BRICS countries. *Prabandhan: Indian Journal of Management*, 9(2), 29–40. <https://doi.org/10.17010/pijom/2016/v9i2/87235>
- Sousa, C., & Sousa, I. (2023). *Brazil-China Cooperation: A New Page for the Telecommunications Industry?* *Observa China*. <https://www.observachina.org/en/articles/cooperacao-brasil-china>
- Stanojevic, S., Bin, Q., & Jian, C. (2020). Sino-EU15 Export Competition in Central and Eastern Europe: Is China Crowding Out Exports from the EU15? *Eastern European Economics*, 58, 264–282. <https://doi.org/10.1080/00128775.2020.1712554>
- Strutynska, I. (2019). *Digital Platform for Determination And Monitoring of The Digital Transformation Bussiness Business Structure*. <https://www.connectedpapers.com/main/11ecc2430a211c430d55f350283ebc95f65753e8/DIGITAL-PLATFORM-FOR-DETERMINATION-AND-MONITORING-OF-THE-DIGITAL-TRANSFORMATION-BUSSINESS-BUSINESS-STRUCTURE/graph>
- Tian, H. F. (2016). The BRICS and the G20. *China and World Economy*, 24(4), 111–126. <https://doi.org/10.1111/cwe.12170> WE - Social Science Citation Index (SSCI)
- Trivedy, A., & Khatun, M. (2023). Importance of BRICS as a regional politics and policies. *GeoJournal*, 88(5), 5205–5220. <https://doi.org/10.1007/s10708-023-10883-w>
- Urdínez, F. (2017). *China in the backyard: Chinese assertiveness and United States hegemony in Latin America between 2001 and 2015*. <https://doi.org/10.11606/T.101.2017.tde-20062017-140250>
- Urdinez, F., Burian, C. L., & De Oliveira, A. J. (2016). MERCOSUR and the Brazilian Leadership Challenge in the Era of Chinese Growth: A Uruguayan Foreign Policy Perspective. *New Global Studies*, 10(1), 1–25. <https://doi.org/10.1515/ngs-2015-0015>
- Vazquez, K. C. (2021). Brazil and BRICS Multilateralism à la Carte: From Bilateralism to Community Interest. *Global Policy*, 12(4), 534–538. <https://doi.org/10.1111/1758-5899.12969>
- Vazquez, K. C. (2022). Brazil–China Relations: Contestation, Adaptation, or Transformation? In D. Pavličević & N. Talmacs (Eds.), *The China Question* (pp. 201–222). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-9105-8_10
- Vérasi, E. Z., & Véras, D. B. (2013). Sino-Brazilian Relations and the Soft Power Cultural Exchange. In A. de Hoyos, K. Kaminishi, & G. Duysters (Eds.), *Proceedings of the 10th International Conference on Innovation and Management* (Issue 10th International Conference on Innovation and Management, pp. 1116–+).



Vieira, M. A., & Alden, C. (2011). India, Brazil, and South Africa (IBSA): South-South cooperation and the paradox of regional leadership. *Global Governance*, 17(4), 507–528. <https://doi.org/10.1163/19426720-01704007>

Webster, J., & Watson, R. T. (2002). Analyzing the Past To Prepare for the Future: Writing a Review. *MIS Quarterly*, 26(2), xiii–xxiii. <https://doi.org/10.2307/4132319>

Whalley, J., & Medianu, D. (2013). The deepening China-Brazil economic relationship. *CESifo Economic Studies*, 59(4), 707–730. <https://doi.org/10.1093/cesifo/ifs031>

Xu, Y. (2016). *China's Strategic Partnerships in Latin America: Case Studies of China's Oil Diplomacy in Argentina, Brazil, Mexico and Venezuela, 1991 to 2015* [University of Miami].

<https://www.semanticscholar.org/paper/30d41c3748f0913fa1d0ed2c806990e8340a3a39>

Yarygina, I., Lukashenko, I., Lee, E., Washington, P., & Tsarev, R. (2021). BRICS-Eurasian Credit Markets: Problems and Prospects. In S. R., S. P., & P. Z. (Eds.), *Lecture Notes in Networks and Systems: Vol. 231 LNNS* (pp. 296–318). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-90321-3_24

Zeng, C., Deng, X., Dong, J., & Hu, P. (2016). Urbanization and sustainability: Comparison of the processes in “BIC” countries. *Sustainability (Switzerland)*, 8(4). <https://doi.org/10.3390/su8040400>